

#### **Contact Information**

We love student questions! As you attend LEARN sessions and work through your regulated education if you have questions we are here for you. Please email us at the email address below, remember to include your state, or post your question on the Community Forum.

nationalleadinstructor@kaplan.com

#### Math

- Calculators: Although most states do not allow you to bring your calculator, some do. Please check the rules related to calculators in your specific state.
- The number of math questions on the National exam is different in each state. Math usually consists of about 10% of the National exam.

#### Percentages

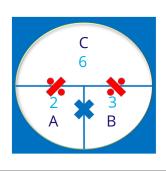
- To change a number with a decimal point to a number with a percentage sign, move the decimal point 2 places to the right.
  - 0.25=25%
- To change a number with a percentage sign to a number without a percentage sign, move the decimal point 2 places to the left.
  - 150% = 1.50
  - 100% is all of something, 1 is all of something

#### Percentages

- When multiplying or dividing by a percentage, always remove the percentage sign first.
- 95% of \$100,000
  - 0.95 x 100,000 = 95,000
- 125% of \$100,000
  - 1.25 x 100,000 = 125,000

#### Circle formula

- Circle formula, or "T" formula
- C = A x B or 6 = 2 x 3
- B = C/A or 3 = 6/2
- A = C/B or 2 = 6/3



## Equity

• Equity is the difference between the market value of the property and the debt owed on it.

Market value \$500,000 Debt \$350,000 Equity \$150,000

Market value \$500,000

Debt \$650,000

Equity \$150,000

Equity ignores the costs of sale and does not accurately reflect the anticipated net proceeds to the seller.

# Seller's net proceeds

• Sellers should be provided a Seller's Net Proceeds calculation before they reply to an offer. These calculations show the seller what they might expect to receive at the close of escrow based on the offer and anticipated costs to close.

# Seller's net proceeds

Sales price
Existing loan payoffs
Commissions
Title Insurance & escrow
5,000

• Transfer tax 500

• Property tax proration ??????? This could be either + or -

• Other closing costs 1,000 • Net to seller \$83,500

• These numbers are for illustration only

## Buyer's cash needed to close

- Before the buyer submits an offer, they should be provided an estimate of the cash that they might need to be able to close the transaction.
- Buyers should also be aware that after paying all of the costs to close, most lenders will require that they still have cash on hand to cover a few months of payments.

## Buyer's cash needed to close

Purchase price	500,000	
New loan	450,000	
Earnest money deposit	15,000	
Balance of down payment	35,000	
Loan points and fees	8,000	
Advance escrow fees (impound)	1,000	
Prorated property taxes	???????	This could be either + or -
Other closing costs	3.000	

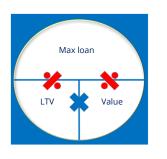
\$47,000

These numbers are for illustration only

• Cash to close

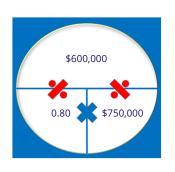
#### Loan-to-value

- The loan-to-value ratio is also called the mortgage ratio. It reflects the maximum amount of money a lender will loan on a property.
- LTV x value = max loan amount



# Question

• A buyer wants to purchase a home for \$750,000. The lender will provide an 80% LTV loan. How much of a loan will the buyer be able to get?



## Loan origination fees

- In addition to discount points, lenders charge a loan origination fee. This can be a fixed dollar amount or a percentage of the loan. This fee does not affect the interest rate of the loan.
- A loan origination fee is charged by the lender to process and issue the loan.

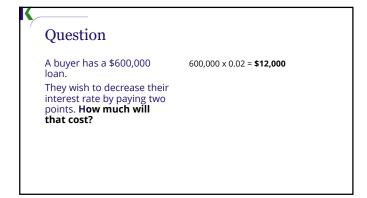
# Discount points

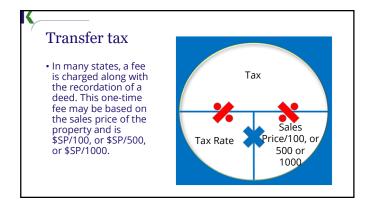
- One point = 1% of the loan amount (cost)
- On a typical 30-year loan, one point will lower the nominal interest rate by 1/8% (0.00125), or .125%
- Discount points are paid to the lender to lower the interest rate on the loan. A lower interest rate results in a lower monthly payment for the borrower.
- Lender charges points to increase the yield (profit) on a loan
- Paid by the buyer or a motivated seller at closing

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# Sample rate sheet % Rate Points 4.875 (5.00-.125) 2 (1+1) 5.00 1 5.125 (5.00+.125) 0 (1-1)





# Capitalization

• Many income-producing properties are valued based on a capitalization rate (cap rate). This number reflects an investor's desired return ON investment (profitability) and their return OF investment. It is typically acquired by looking at the cap rates from recent sales of similar properties. NOI/(Cap x Value)

• I=Income R=Cap Rate V=Value



Loan payments

• A Loan Factor is a number that allows you to calculate the **Principal and Interest** 

payment for a stated interest rate over a given period. It is presented as the payment for each \$1,000 borrowed.

- Loan Factor: 6.5
- Loan amount \$500,000
- 500,000/1,000 = 500
- 500 x 6.5 = **\$3,250**

## Principal, interest, taxes, & insurance (PITI)

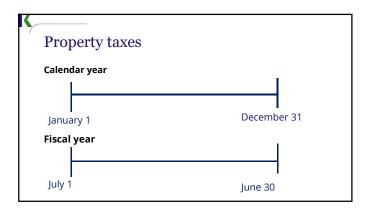
• Some loans require PITI to be paid. To calculate the taxes and insurance portion of the payment, simply take the annual taxes and annual insurance and divide them by 12. That will provide the monthly amount to be added to the principal and interest payments to yield the PITI.

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# Question

• A buyer is acquiring a \$600,000 loan with a loan factor of 6.65. The annual tax bill is \$10,000 and the annual insurance costs \$2,000. What would the PITI be for the borrower?

600,000/1,000 = 600  $600 \times 6.65 = 3,990.00$ (**PI**) 10,000 + 2,000 = 12,00012,000/12 = 1,000 (**TI**) 3,990 + 1,000 = 4,990 **(PITI)** 



## **Prorations**

- Prorations calendars
  - Standard calendar: 365 days. The number of days in each
  - 30/360 calendar: each month has 30 days
    - This makes the closing statement calculations easier
- Who is financially responsible for the day of close?
   Buyer or seller
   States differ as to their custom regarding this, but it can always be negotiated

Proration	question
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- The tax year begins on July 1.
   The annual taxes have been paid in advance
   paid, \$1,800. The close of escrow is on November 30th.

   The taxes have been paid in advance
   Credit seller and debit buyer. Using a 360-day calendar and the day of close belonging to the seller, what is the property tax proration at the close of escrow?

  - The seller has paid for December through June: 7 months or 210 days.
  - The per diem is 1,800/360=\$5
  - \$5 x 210 = \$1,050 credit seller, debit buyer

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Questions about the information that was covered today? Please send your questions to the email address below or post them in the Community Forum.

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Thank you for attending today's LEARN session